OP-103 #5 8/31/89

Enz-1-Div (Cont) II

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	:	David C. Ward et al.
Serial No.	:	130,097
Filed	:	December 7, 1987
For	:	MODIFIED NUCLEOTIDES AND METHODS OF PREPARING AND USING SAME

New York, New York
August 4, 1989

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

STATEMENT UNDER 37 C.F.R. §§ 1.56 AND 1.97

Sir:

Pursuant to 37 C.F.R. § 1.56 and 1.97 applicants make of record in this application documents made of record and provided to the Examiner in the parent application hereto, United States serial number 496,915, issued as United States patent 4,711,955 December 8, 1987. Pursuant to MPEP § 609(2) applicants state that the relevance of the documents cited in the parent application hereto is the same as in the present application.

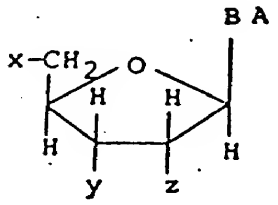
Applicants also make of record in this application the United States priority application for two Japanese patent applications cited in a Japanese application claiming priority from the parent application hereto. These Japanese patent applications were cited in an Office Action issued by the Japanese Patent Office after the issue of United States patent 4,711,955. For the convenience of the Examiner, a completed Form 1449, listing all documents made of record in this application is attached.

United States Patent Application

572,008

The Invention

This invention relates to complexes having the structure



wherein B represents a purine, deazapurine, or pyrimidine moiety covalently bonded to the $C^{1'}$ -position of the sugar moiety, provided that when B is a purine or pyrimidine, it is attached at the N^9 position of the purine or deazapurine, and when B is pyrmidine, it is attached at the N^1 position;

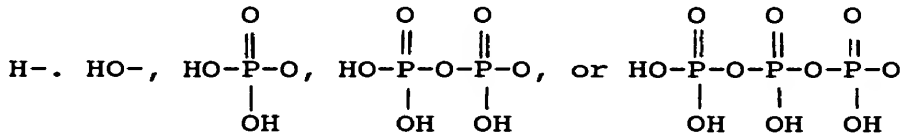
wherein A represents a component of a detectable complex and comprises at least three carbon atoms;

wherein B and A are attached together directly or through a linkage group, said linkage group not interfering substantially with the characteristic ability of A to form a detectable complex;

wherein if B is a purine, the linkage group is attached to the 8 -position of the purine, if B is a

deazapurine, the linkage group is attached to the 7 -position of the deazapurine, and if B is a pyrimidine, the linkage is attached to the 5 -position of the pyrmidine; and

wherein each of x, y and z represents:



and which composition further comprises at least one additional component including a polypeptide capable of directly or indirectly forming said complex with A.

The Cited Documents

None of the above-cited documents made of record by the applicants herein, either alone or in any combination thereof, renders the claims of this application unpatentable. It is respectfully requested that these documents: (1) be fully considered by the Examiner during the examination of this application, (2) be listed on any Notice Of Documents Cited issued in this application and (3 be printed on any patent which may issue from this application.

United States patent application serial number 572,008, as well as previously cited United States patents 4,134,792, 4,230,797, 4,318,980, 4,380,580 and 4,383,031, German Offenlegungsschrifts 2618419 A1 and 2618511 A1, Great Britain patents 1,548,741 and 1,552,607, refers to a heterogeneous specific binding assay which employs a reactant having activity as a labeling substance in the detection of a ligand in a liquid medium. The method is said to be carried out using a reagent which comprises, as its labeled constituent, a conjugate formed of a specific binding substance coupled to the reactant. The reactant is an enzymatic reactant such as an enzyme substrate or coenzyme. The activity of the conjugated reactant is utilized

as means for monitoring the extent of binding of the labeled constitutent in conventional heterogeneous specific binding assay schemes. The presence of a ligand in a liquid medium is determined following conventional competitive binding manipulative techniques. The documents refer to use of various derivatives of adenosine (a purine) -5'-phosphates, including 8-[2-(2,4-dinitrophenyl)amino adenosine -5'-triphosphate as reactants. In one example, avidin is the ligand and biotin is the specific binding substance.

Applicants request early allowance of all claims of this application.

Respectfully submitted

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